## We claim:

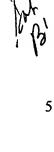
A method for treating and/or ameliorating the symptoms of a cerebral ischemic condition in a mammalian subject, comprising administering to the subject an effective amount of a non-alpha tocopherol enriched tocopherol composition, and by said administering, reducing neuronal damage related to said cerebral ischemic condition.

- 2. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a gamma-tocopherol enriched tocopherol composition.
- 3. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a gamma-tocopherol metabolite enriched composition.
- 4. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a beta-tocopherol enriched tocopherol composition.
- 5. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a beta-tocopherol metabolite enriched composition.
- 6. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a delta-tocopherol enriched tocopherol composition.
- 7. The method of claim 1 wherein the non-alpha tocopherol enriched tocopherol composition is a delta-tocopherol metabolite enriched composition.
- 8. The method of claim 3 wherein said gamma-tocopherol metabolite is gampa-CEHC.
- 9. The method of claim 1 wherein the cerebral ischemic condition is secondary to an occlusion of the cerebral vasculature.
- 10. The method of claim 9 wherein the occlusion is due to a thromboembolis.
- 11. The method of claim 1 wherein the cerebral ischemia is due to a spasm of the coronary vasculature.
- 12. The method of claim 1 wherein the cerebral ischemic condition is secondary to a cessation of cardiac function.

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13 The method of claim 1 wherein the cerebral ischemic condition is secondary to a cardiopulmonary bypass procedure.

- 14. The method of claim 1 wherein the cerebral ischemic condition is secondary to a hemorrhagic event in the cerebral vasculature.
- 15. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 60% gamma-tocopherol.
- 16. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least \$5% gamma-tocopherol.
- 17. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 70% gamma-tocopherol.
- 18. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 75% gamma-tocopherol.
- 19. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 80% gamma-tocopherol.
- 20. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 85% gamma-tocopherol.
- 21. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 90% gamma-tocopherol.
- 22. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 95% gamma-tocopherol.
- 23. The method of claim 2 wherein said gamma-tocopherol enriched tocopherol composition comprises at least 98% gamma-tocopherol.
- 24. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 60% gamma-tocopherol metabolite.
- 25. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 65% gamma-tocopherol metabolite.
- 26. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 70% gamma-tocopherol metabolite.

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27. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 75% gar ma-tocopherol metabolite.

28. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 80% gamma-tocopherol metabolite.

- 29. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 85% gamma-tocopherol metabolite.
- 30. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 90% gamma-tocopherol metabolite.
- 31. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 95% gamma-tocopherol metabolite.
- 32. The method of claim 3 wherein said gamma-tocopherol metabolite enriched composition comprises at least 98% gamma-tocopherol metabolite.
- 33. The method of claim 4/wherein said beta-tocopherol enriched tocopherol composition comprises at least 50% beta-tocopherol.
- 34. The method of claim/4 wherein said beta-tocopherol enriched tocopherol composition comprises at least 65% beta-tocopherol.
- 35. The method of claim 4 wherein said beta-tocopherol enriched tocopherol composition comprises at least 75% beta-tocopherol.
- 36. The method of claim 4 wherein said beta-tocopherol enriched tocopherol composition comprises at least 90% beta-tocopherol.
- 37. The method of claim 4 wherein said beta-tocopherol enriched tocopherol composition comprises at least 95% beta-tocopherol.
- 38. The method of claim 4 wherein said beta-tocopherol enriched tocopherol composition comprises at least 98% beta-tocopherol.
- 39. The method of claim 5 wherein said beta-tocopherol metabolite enriched composition comprises at least 50% beta-tocopherol metabolite.

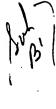
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- 40. The method of claim 5 wherein said beta-tocopherol metabolite enriched composition comprises at least 65% beta-tocopherol metabolite.
- 41. The method of claim 5 wherein said beta-tocopherol metabolite enriched composition comprises at least 90% beta-tocopherol metabolite.
- 43. The method of claim 6 wherein said delta-tocopherol enriched tocopherol composition comprises at least 65% delta-tocopherol.
- 44. The method of claim 6 wherein said delta-tocopherol enriched tocopherol composition comprises at least 75% delta-tocopherol.
- 45. The method of claim 6 wherein said delta-tocopherol enriched tocopherol composition comprises at least 90% delta-tocopherol.
- 46. The method of claim 6 wherein said delta-tocopherol enriched tocopherol composition comprises at least 95% delta-tocopherol.
- 47. The method of claim 6 wherein said delta-tocopherol enriched tocopherol composition comprises at least 98% delta-tocopherol.
- 48. The method of claim/7 wherein said delta-tocopherol metabolite enriched composition comprises at least 50% delta-tocopherol metabolite.
- 49. The method of claim 7 wherein said delta-tocopherol metabolite enriched composition comprises at least 65% delta-tocopherol metabolite.
- 50. The method of claim 7 wherein said delta-tocopherol metabolite enriched composition comprises at least 90% delta-tocopherol metabolite.
- 51. The method of claim 1 wherein said composition is a nutritional composition.
- 52. The method of claim 1 wherein said composition is a pharmaceutical composition.
  - 53. The method of claim 1 wherein said composition is administered orally.

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54. The method of claim 1 wherein said composition is administered parenterally.

55. The method of claim 1 wherein said composition comprises a non-alpha tocopherol in a range of 1-1000 mg per kg body weight of said mammalian subject.

56. The method of claim wherein said composition comprises a non-alpha tocopherol in a range of 1-50 mg/per kg body weight of said mammalian subject.

57. The method of claim 1 wherein said composition comprises a non-alpha tocopherol in a range of 10-100 mg per kg body weight of said mammalian subject.